

# Recovery Plan Action Status

Plan Name: Chiricahua Leopard Frog Recovery Plan

Plan Status: Final

Plan Date: 04-Jun-07

Lead Agency: USFWS

Lead Office: Arizona Ecological Services Field Office

(2602)

242-0210 )

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog (Rana chiricahuensis)	1	1.1	Identify threats to each extant population	Ongoing Current	FY 2007	FY 2012	U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque	Management	Species Expert	Pretty much done as part of the preparation for the proposed critical habitat rule. Info will be summarized in that rule.
Chiricahua leopard frog (Rana chiricahuensis)	1	1.2.1	Develop recommendations for use and maintenance of watersheds	Not Started	FY 2008	FY 2009	San Carlos Apache Tribe, White Mountain Apache Tribe, La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, Coronado, Gila, Coconino, Tonto, and Apache-Sitgreaves National Forests, Natural Resources Conservation Service, Stakeholders Subgroups, Technical Subgroup of the Recovery Team	Management: Habitat Maintenance and Manipulation	Species Expert	Some information in Appendix H of the Recovery Plan. Being applied sparingly in site-specific plans.
Chiricahua leopard frog (Rana chiricahuensis)	1	1.2.10.1	Work with AGFD, NMDGF, and FWS to evaluate if stocking of non-native fishes impact extant populations or other recovery activities in MAs and amend stocking regimes as necessary	Ongoing Current	FY 2008	FY 2011	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, Stakeholders Subgroups, Technical Subgroup of the Recovery Team	Management: Predator and Competitor Control	Species Expert	We have an intra-service consultation on sport fish stocking ongoing in Arizona.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	1	1.2.10.2	Enforce existing or develop new regulations and policies and outreach to prevent illegal stocking of non-native fish in MAs	Ongoing Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque	Management: Predator and Competitor Control	Internal Technical Assistance	Nothing new here, but new policies may come out of the intra-service sport fish stocking consultation in Arizona.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	1	1.2.10.3	Regulate use of live bait (crayfish, fishes, frogs, and salamanders) in and near extant populations	Ongoing Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department	Management: Predator and Competitor Control	Species Expert	Nothing new here, but changes may result from sport fish stocking consultation in Arizona.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	1.2.10.4	Enforce existing or develop new regulations and policies to prevent introductions of novel non-native predators within and near the range of the Chiricahua leopard frog	Ongoing Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, San Carlos Apache Tribe, White Mountain Apache Tribe, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, Stakeholders Subgroups, Technical Subgroup of the Recovery Team	Other: Law Enforcement	Internal Field Assistance	Nothing new here, but changes may occur as a result of sport fish stocking consultation in Arizona.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	1	1.2.11	Minimize or eliminate the spread of infectious diseases to extant populations	Ongoing Current	FY 2007	FY 2012	U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque	Management: Disease Control	Internal Technical Assistance	Implementing disease prevention protocols in surveys and translocations. Nothing new here, although we have discovered that our Bd treatment protocol is not as effective as we thought. We are now testing frogs prior to release.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	1.2.12	Eliminate disease from recovery sites	Ongoing Current	FY 2008	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, U.S. Fish and Wildlife Service, Refuges (Buenos Aires and Leslie Canyon), Coronado, Gila, Coconino, Tonto, and Apache-Sitgreaves National Forests, Natural Resources Conservation Service, Stakeholders Subgroups	Management: Disease Control	Internal Technical Assistance	We do not know how to effectively eliminate disease from recovery sites, but a study is underway to test a probiotic that may, when applied to the skin of a frog, afford some protection from the effects of the disease.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	1.2.13	Develop and implement contingency plans to ensure persistence of each population or metapopulation in case of environmental disaster (drought, floods, fire, etc)	Ongoing Current	FY 2008	FY 2012	New Mexico Department of Game and Fish, Phoenix Zoo, Arizona Game and Fish Department, Arizona-Sonora Desert Museum, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT , Stakeholders Subgroups, Technical Subgroup of the Recovery Team	Management: Planning	Internal Technical Assistance	Many of the populations in New Mexico are replicated in refugia populations, primarily as a hedge against loss from disease. A few populations in Arizona are backed up in this manner, but disease is not as much an issue in AZ, so the need is not as great.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	1.2.14	Develop and implement a genetic management plan to maintain or enhance genetic diversity within each RU	Ongoing Current	FY 2008	FY 2012	New Mexico Department of Game and Fish, San Carlos Apache Tribe, White Mountain Apache Tribe, Phoenix Zoo, Arizona Game and Fish Department, Arizona-Sonora Desert Museum, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, Technical Subgroup of the Recovery Team	Management: Planning	Species Expert	We don't have a genetic management plan, per se, but Herrmann et al. has evaluated genetic diversity range wide, so we have the information to manage genetics in terms of knowing which stock of frogs could or should be used for translocations in recovery units and MAs.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	1.2.15	Enhance carrying capacity of small populations	Ongoing Current	FY 2008	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Refuges (Buenos Aires and Leslie Canyon), La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT, Natural Resources Conservation Service, Stakeholders Subgroups	Management: Planning	Species Expert	Some work has been done in some areas to improve or expand habitats (e.g. Gentry Creek and Buckskin Hills areas of RU5; Ramsey Canyon, Miller Canyon, Brown Cyn, Carr Cyn in RU2) so that small populations may expand and have potential to be robust populations. Much work is yet to be accomplished, however.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	1.2.16	Enhance drought resistance of populations and habitats	Ongoing Current	FY 2008	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Refuges (Buenos Aires and Leslie Canyon), La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT , Natural Resources Conservation Service, Stakeholders Subgroups	Management: Habitat Maintenance and Manipulation	Internal Technical Assistance	Some work has been done on this action, such as a solar-powered well at Pasture 9 Tank (RU2), improvements to the windmill and spring pipeline at House Pond (RU2), etc.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	1	1.2.17.1	Within metapopulations, identify dispersal corridors based on reasonable dispersal distances and geography within each RU	Complete	FY 2008	FY 2010	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT , Technical Subgroup of the Recovery Team	Management: Planning	Internal Technical Assistance	This has been completed as part of the proposed critical habitat rule, which will publish in December 2010.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	1	1.2.17.2	Develop plans to maintain or restore dispersal corridors where dispersal is beneficial	Not Started	FY 2009	FY 2011	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT , Natural Resources Conservation Service	Management: Planning	Internal Technical Assistance	Haven't identified problems with dispersal corridors that need attention.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	1	1.2.17.3	Implement plans to maintain or restore dispersal corridors	Not Started	FY 2011	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Refuges (Buenos Aires and Leslie Canyon), La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT , Natural Resources Conservation Service, Stakeholders Subgroups	Management: Land Use	Internal Technical Assistance	No plans developed (see 1.2.17.2)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog (Rana chiricahuensis)	1	1.2.18	Implement conservation and compensation protocols in Appendix I for all projects that may affect extant frog populations	Ongoing Current	FY 2007	FY 2012	a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT	Management: Other	Internal Technical Assistance	The protocols in Appendix I are used routinely in section 7 consultations. Another more detailed document - "Considerations for Making Effects Determinations..." (2009) is also available for this purpose.
Chiricahua leopard frog (Rana chiricahuensis)	1	1.2.2	Implement watershed use and maintenance recommendations	Ongoing Current	FY 2009	FY 2012	a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT	Management: Habitat Maintenance and Manipulation	Internal Technical Assistance	The recommendations in Appendix H are used to some degree by agencies and the Service.
Chiricahua leopard frog (Rana chiricahuensis)	1	1.2.3	Restore hydrology	Ongoing Current	FY 2007	FY 2012	a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT ; Natural Resources Conservation Service	Management: Habitat Maintenance and Manipulation	Internal Technical Assistance	Recommendations in Appendix H are used to some degree by agencies and the Service.
Chiricahua leopard frog (Rana chiricahuensis)	1	1.2.4	Restore natural fire regimes in the watersheds of extant populations of Chiricahua leopard frogs and in MAs	Ongoing Current	FY 2007	FY 2012	a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT ; Natural Resources Conservation Service	Management: Habitat Maintenance and Manipulation	Internal Technical Assistance	On the Coronado National Forest in particular, various plans are under development or being implemented to reduce fuels, introduce a natural fire regime, and reduce the chances of catastrophic fire (e.g. Huachuca Mtns, Dragoons, Chiricahuas, Peloncillos). Some work on other forests, as well.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	1.2.5	Identify, minimize, and mitigate contaminants that threaten Chiricahua leopard frog populations	Ongoing Current	FY 2007	FY 2012	U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT	Management: Habitat Maintenance and Manipulation	Internal Technical Assistance	We attempt to implement and encourage others to implement the Region 2 Pesticide Use Guidelines (White 2004), and consult on mining and other activities that can cause contaminants problems.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	1.2.6	Implement guidelines for cattle pond use and maintenance	Ongoing Current	FY 2007	FY 2012	a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT , Natural Resources Conservation Service	Management: Habitat Maintenance and Manipulation	Species Expert	Guidelines in Appendix A of the Recovery Plan are implemented to some degree by land management agencies and the Service.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	1	1.2.7	Implement guidelines for livestock grazing activities	Ongoing Current	FY 2007	FY 2012	a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT , Natural Resources Conservation Service	Management: Habitat Maintenance and Manipulation	Species Expert	We have consulted with most Federal land managers on livestock grazing, and guidelines in the recovery plan guide our recommendations.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	1.2.8	Enhance bankline and aquatic vegetation, and habitat complexity at sites with extant populations, where needed	Ongoing Current	FY 2007	FY 2012	a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT , Natural Resources Conservation Service	Management: Habitat Maintenance and Manipulation	Internal Technical Assistance	Some work has been accomplished here, such as fencing or partial fencing of tanks in the Buckskin Hills (RU5), Ladder Ranch (RU8), Gila National Forest (RU6), House Pond (RU2).



Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog (Rana chiricahuensis)	1	1.2.9	Eliminate non-native predators at or near Chiricahua leopard frog populations that pose a threat to those populations	Ongoing Current	FY 2007	FY 2012	Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT , Natural Resources Conservation Service	Management: Predator and Competitor Control	Internal Technical Assistance	Much work has been accomplished on this task, including almost eliminating bullfrogs from the Altar Valley (RU1), and eliminating them from the Pena Blanca lake area (RU1) and Scotia Canyon region (RU2). Local exotic control has occurred in the Buckskin Hills and Trail Tank in RU5, Carr Carn Pond (RU3), and Ladder Ranch (RU8).
Chiricahua leopard frog (Rana chiricahuensis)	1	1.3	Establish refugia populations as needed to preserve frog populations in MAs or RUs	Ongoing Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, Phoenix Zoo, Arizona Game and Fish Department, Arizona-Sonora Desert Museum, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, U.S. Fish and Wildlife Service, Refuges (Buenos Aires and Leslie Canyon), Coronado, Gila, Coconino, Tonto, and Apache-Sitgreaves National Forests, Stakeholders Subgroups	Management: Propagation	Species Expert	Much work has been done on this task, especially in New Mexico, to back up extant populations that are susceptible to disease. A few populations have been backed up in Arizona (e.g. Altar Valley frogs established at the Chilton Ranch refugia in RU1), but the need in Arizona is not as great because disease isn't as big a factor.
Chiricahua leopard frog (Rana chiricahuensis)	2	10.1	Support work by Tribal biologists to survey potential habitats on Tribal lands and to better determine the distribution and status of the frog	Not Started	FY 2008	FY 2012	San Carlos Apache Tribe, White Mountain Apache Tribe, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque	Acquisition: General	Contract	

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	10.2	Develop partnerships with Tribes to implement recovery actions	Not Started	FY 2008	FY 2012	San Carlos Apache Tribe, White Mountain Apache Tribe, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque	Acquisition: General	Contract	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	1	11.1	Support work by Mexican biologists to survey potential habitats and determine the distribution and population status of the frog in Mexico	Ongoing Current	FY 2008	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora	Acquisition: Other	Contract	In 2008, 2009, and 2010, we developed and presented workshops for Mexican biologists on amphibian survey protocols, monitoring, and conservation techniques, as a way to build capacity for conservation in Northwestern Mexico. Workshops were held at Rancho Los Fresnos and at the Northern Jaguar Reserve, Sonora. Workshops are taught in Spanish and students receive both classroom and field training.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	11.2	Develop partnerships with Mexican agencies and landowners to implement recovery actions	Ongoing Not Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora	Acquisition: General	Contract	Although we have willing partners in Sonora, we lack funds to implement recovery actions in Mexico.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	12	Practice adaptive management in which recovery actions are revised by USFWS in coordination with the Recovery Team Subgroups as pertinent new information becomes available	Not Started	FY 2008	FY 2012	San Carlos Apache Tribe, White Mountain Apache Tribe, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, Stakeholders Subgroups, Technical Subgroup of the Recovery Team	Management: Planning	Internal Technical Assistance	Annually we hold meetings of the three regional steering committees - Mogollon Rim (AZ), North-Central NM, and SE AZ/SW NM to discuss implementation of the recovery plan. We also have numerous local recovery groups that meet regularly to address recovery in specific areas. Thus far, we have not identified a need to revise recovery actions in the plan.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	2.1	Using selection factors and process, identify and select suitable and potentially suitable habitats in MAs as recovery sites and for subsequent establishment/reestablishment of Chiricahua leopard frogs	Ongoing Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT, Natural Resources Conservation Service, Ramsey Canyon Leopard Frog Conservation Team	Management: Reintroduction	Species Expert	Much progress has been made in RUS 2, 4, and 5. Additional reestablishments may not be needed in RU 1, and 8 is looking pretty good as well.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	2.2	Identify factors reducing or threatening habitat suitability at each of the selected recovery project sites	Ongoing Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Refuges (Buenos Aires and Leslie Canyon), La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT , Natural Resources Conservation Service	Management: Reintroduction	Species Expert	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	2.3	Develop agreements with landowners/managers and complete environmental and other compliance	Ongoing Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT	Management: Reintroduction	Internal Technical Assistance	We have two umbrella safe harbor agreements and an HCP that address the frog. We also have a ranch-specific safe harbor agreement in recovery unit 3. Many landowners are signed up under the safe harbor agreements. The safe harbor agreements cover all lands in Arizona and recovery unit 3 in New Mexico.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	2.4	Treat potentially suitable habitat at recovery project sites to eliminate or reduce threats to habitat suitability	Ongoing Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT	Management: Habitat Maintenance and Manipulation	Internal Technical Assistance	Much work has been accomplished in the Buckskin Hills (RU5), the Gentry Creek MA (RU5), sites in RUs 1 and 2, the Ladder Ranch in RU8, and other areas. Included have been non-native predator removal, fencing to prevent ungulate/cattle damage, deepening of ponds, construction of ponds, etc.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	2.5	Minimize or eliminate the spread of infectious diseases to recovery sites by implementing disease prevention protocols	Ongoing Current	FY 2007	FY 2012	All (all parties within this plan)	Management: Disease Control	Internal Technical Assistance	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	2.6	Eliminate disease from recovery sites by using results of research (6.19) to control/eliminate disease	Not Started	FY 2009	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT, Stakeholders Subgroups	Management: Disease Control	Internal Technical Assistance	Do not know how to do this.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	2.7	Protect selected recovery sites in the same way as habitat supporting extant populations, per recovery action 1 above	Ongoing Current	FY 2007	FY 2012	a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT	Management	Internal Technical Assistance	Cost to be determined

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	1	3.1	Collect eggs, larvae, or frogs from donor sites to be used for translocation	Ongoing Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, San Carlos Apache Tribe, White Mountain Apache Tribe, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, U.S. Fish and Wildlife Service, Refuges (Buenos Aires and Leslie Canyon), La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, Coronado, Gila, Coconino, Tonto, and Apache-Sitgreaves National Forests, Ramsey Canyon Leopard Frog Conservation Team, Stakeholders Subgroups, Technical Subgroup of the Recovery Team	Management: Propagation	Internal Technical Assistance	Much work has been done on this since before the species was listed and in all recovery units.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	3.2	Head-start eggs and larvae	Ongoing Current	FY 2007	FY 2012	Phoenix Zoo, Arizona Game and Fish Department, Arizona-Sonora Desert Museum, U.S. Fish and Wildlife Service, Refuges (Buenos Aires and Leslie Canyon), La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora	Management: Propagation	Species Expert	Much work has been done on this since before the species was listed. We have head-start facilities at zoos, museums, on ranches, a fish hatchery, and at a high school.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	3.3	Release tadpoles/frogs to selected recovery sites	Ongoing Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, San Carlos Apache Tribe, White Mountain Apache Tribe, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, U.S. Fish and Wildlife Service, Refuges (Buenos Aires and Leslie Canyon), La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, Coronado, Gila, Coconino, Tonto, and Apache-Sitgreaves National Forests	Management: Reintroduction	Internal Technical Assistance	Much work has been done on this since before the species was listed and in all recovery units.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	4.1	Through population monitoring (5.3) identify sites needing augmentation	Ongoing Current	FY 2008	FY 2012	New Mexico Department of Game and Fish, San Carlos Apache Tribe, White Mountain Apache Tribe, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, U.S. Fish and Wildlife Service, Refuges (Buenos Aires and Leslie Canyon), La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, Stakeholders Subgroups, Technical Subgroup of the Recovery Team	Management: Reintroduction	Internal Technical Assistance	We do this routinely in all recovery units.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	4.2	Identify a nearby source or donor population that is similar genetically	Not Started	FY 2008	FY 2012	New Mexico Department of Game and Fish, San Carlos Apache Tribe, White Mountain Apache Tribe, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, U.S. Fish and Wildlife Service, Refuges (Buenos Aires and Leslie Canyon), La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, Stakeholders Subgroups, Technical Subgroup of the Recovery Team	Management: Reintroduction	Internal Technical Assistance	We do this routinely.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	4.3	Develop agreements with landowners/managers	Not Started	FY 2008	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT	Management: Reintroduction	Internal Technical Assistance	Yes we do - safe harbor agreements and HCPs among others.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	4.4	Complete environmental compliance and documentation	Not Started	FY 2008	FY 2012	New Mexico Department of Game and Fish, San Carlos Apache Tribe, White Mountain Apache Tribe, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque	Management: Planning	Internal Technical Assistance	Yes we do.



Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	4.5	Follow steps 3.1-3.3 to augment populations	Not Started	FY 2008	FY 2012	New Mexico Department of Game and Fish, San Carlos Apache Tribe, White Mountain Apache Tribe, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, U.S. Fish and Wildlife Service, Refuges (Buenos Aires and Leslie Canyon), La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, Coronado, Gila, Coconino, Tonto, and Apache-Sitgreaves National Forests	Management: Reintroduction	Internal Technical Assistance	We do
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	5.1	Prepare monitoring schedule and protocol for monitoring populations and implementation of the recovery plan	Not Started	FY 2008	FY 2011	San Carlos Apache Tribe, White Mountain Apache Tribe, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, U.S. Fish and Wildlife Service, Refuges (Buenos Aires and Leslie Canyon), La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora	Management: Other	Internal Technical Assistance	Monitoring is still not formalized. It is a hodge podge of monitoring by various agencies and individuals. Needs standardization.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	5.2	Develop agreements with willing landowners and Tribes to survey for and monitor populations on non-Federal lands	Ongoing Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, San Carlos Apache Tribe, White Mountain Apache Tribe, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora	Management: Planning	Internal Technical Assistance	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	5.3	Conduct monitoring	Ongoing Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, U.S. Fish and Wildlife Service, Refuges (Buenos Aires and Leslie Canyon), La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT, Coronado, Gila, Coconino, Tonto, and Apache-Sitgreaves National Forests	Management: Other	Internal Technical Assistance	We do monitoring, but it is not the formal population monitoring prescribed in the recovery plan.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	5.4	Prepare annual report of monitoring results	Not Started	FY 2008	FY 2012	Stakeholders Subgroups, Technical Subgroup of the Recovery Team	Management: Other	Internal Technical Assistance	We sort of do this in our annual recovery updates for each of the three steering committee areas (Mogollon Rim/AZ, SE AZ/SW NM, and W-C NM).

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	5.5	Develop interagency cooperation regarding data sharing and data repository	Ongoing Current	FY 2008	FY 2010	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, La Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora	Management: Other	Internal Technical Assistance	This has begun in NM, but the system isn't yet up and running.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	3	6.1	Determine habitat use/needs/selection and home range or territoriality	Not Started	FY 2009	FY 2012	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Acquisition	Contract	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	3	6.1	Study population and metapopulation dynamics	Not Started	FY 2009	FY 2012	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Acquisition	Contract	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	6.11	Determine age and size at first reproduction and growth rates	Not Started	FY 2009	FY 2012	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Acquisition: General	Contract	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	6.12	Examine interactions with non-native predators and competitors	Ongoing Current	FY 2007	FY 2009	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Acquisition	Contract	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	1	6.13	Research and evaluate methods to control non-native predators and competitors	Not Started	FY 2009	FY 2012	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Acquisition: General	Contract	

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	1	6.14	Examine genetic relationships of populations within and between RUs and within and between metapopulations	Ongoing Current	FY 2007	FY 2008	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Acquisition: General	Contract	This work has been completed and we have a draft report. It will be published in a peer-reviewed journal.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	1	6.15	Conduct Population Viability Analysis (PVA) and/or Population and Habitat Viability Analysis (PHVA)	Not Started	FY 2010	FY 2011	Stakeholders Subgroups, Technical Subgroup of the Recovery Team	Acquisition: General	Contract	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	6.16	Develop more effective means to monitor populations	Not Started	FY 2008	FY 2011	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations, Stakeholders Subgroups, Technical Subgroup of the Recovery Team	Acquisition	Contract	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	3	6.17	Examine frequency and distribution of disease and die-offs	Ongoing Current	FY 2007	FY 2012	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Acquisition	Contract	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	6.18	Research spread and environmental triggers of disease	Ongoing Current	FY 2007	FY 2012	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Research: Disease	Graduate Student	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	1	6.19	Investigate methods to treat chytrids in wild populations	Ongoing Current	FY 2007	FY 2012	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Acquisition: General	Contract	A study was funded to examine the feasibility of using probiotics to combat chytridiomycosis in the Chiricahua leopard frog.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	6.2	Investigate effects of pesticides and other contaminants on the frog	Not Started	FY 2009	FY 2011	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Research: Environmental Contaminants	Contract	A study was done to investigate the effects of selected pesticides and heavy metals on the Chiricahua leopard frog. A report was completed in 2008.
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	6.2	Describe oviposition sites	Not Started	FY 2008	FY 2009	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Acquisition	Contract	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	3	6.2	Identify and describe hibernacula	Not Started	FY 2009	FY 2010	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Acquisition	Contract	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	6.4	Evaluate dispersal capabilities or seasonal movement in tandem with reestablishment projects	Not Started	FY 2009	FY 2012	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Acquisition	Contract	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	1	6.5	Examine seasonal changes in activity	Not Started	FY 2009	FY 2012	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Acquisition: General	Contract	
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	6.6	Examine response to flooding	Not Started	FY 2009	FY 2012	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Acquisition	Contract	

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog (Rana chiricahuensis)	1	6.7	Examine feeding and foraging behavior and diet	Ongoing Current	FY 2008	FY 2011	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Acquisition: General	Contract	A diet study was conducted in NM. Report in 2006.
Chiricahua leopard frog (Rana chiricahuensis)	2	6.8	Examine individual and population response to habitat manipulation	Not Started	FY 2009	FY 2012	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Acquisition	Contract	
Chiricahua leopard frog (Rana chiricahuensis)	3	6.9	Determine the best life stage for release to the wild	Not Started	FY 2009	FY 2012	Researchers from AGFD, NMDGF, Universities, CEDES, SCAT, WMAT, Forest Service Range and Experiment Stations	Management: Reintroduction	Contract	
Chiricahua leopard frog (Rana chiricahuensis)	1	7.1	Develop regional recovery working groups that practice broad-based community planning	Complete	FY 2007	FY 2012	Stakeholders Subgroups, Technical Subgroup of the Recovery Team	Management: Planning	Species Expert	We have three - Mogollon Rim/AZ, W-C NM, and SE AZ/SW NM Steering Committees.
Chiricahua leopard frog (Rana chiricahuensis)	2	7.2	Post and maintain signs to inform the public of land-use restrictions	Ongoing Current	FY 2007	FY 2012	a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT	Management: Land Use	Internal Field Assistance	
Chiricahua leopard frog (Rana chiricahuensis)	1	7.3	Develop outreach materials to inform the public and build support for frog recovery	Ongoing Current	FY 2008	FY 2012	a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT , Stakeholders Subgroups, Technical Subgroup of the Recovery Team	Acquisition	Contract	Completed an informational brochure in 2010 and we have a publically accessible recovery website on the AESO website.
Chiricahua leopard frog (Rana chiricahuensis)	1	7.4	Continue momentum for recovery through the Stakeholders and Technical Subgroups	Ongoing Current	FY 2007	FY 2012	Stakeholders Subgroups, Technical Subgroup of the Recovery Team	Other: Information and Education	Species Expert	We do this through many local recovery groups and the 3 regional steering committees that meet at least annually.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog (Rana chiricahuensis)	2	7.5	Amplify efforts by expanding to include coalitions with other species and ecosystem projects	Ongoing Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT , Stakeholders Subgroups, Technical Subgroup of the Recovery Team	Management: Planning	Internal Technical Assistance	Some cross over with gartersnake, native fish, and Sonoran tiger salamander recovery occurs.
Chiricahua leopard frog (Rana chiricahuensis)	1	8.1	Seek out willing partners through the Stakeholders Subgroups and other venues	Ongoing Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, Natural Resources Conservation Service, Stakeholders Subgroups	Other: Information and Education	Species Expert	
Chiricahua leopard frog (Rana chiricahuensis)	2	8.2	Develop agreements with willing parties	Ongoing Current	FY 2007	FY 2012	New Mexico Department of Game and Fish, Arizona Game and Fish Department, U.S. Fish and Wildlife Service, Ecological Services, Phoenix and Albuquerque, Natural Resources Conservation Service, Stakeholders Subgroups	Management: Planning	Internal Technical Assistance	Yes we do - safe harbor agreements, HCPs and such.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Chiricahua leopard frog ( <i>Rana chiricahuensis</i> )	2	9	Amend land use plans, habitat management plans, and other plans as needed to implement recovery actions	Ongoing Current	FY 2007	FY 2012	a collective term for land managers, including BLM, NFs, FTHUA, FWSR, NFs, SCAT, SSG, TNC, and WMAT	Management: Land Use	Internal Technical Assistance	Not much of this is happening, but not much is needed to do the recovery work on the ground, either.